A dynamic splash of water against a light blue background, with a dark blue diagonal band across the right side.

Water Quality Report

City of Goodyear Water Resources Department • 2005 Testing Results





Water Quality Report

City of Goodyear

Continuing Our Commitment to Water Quality

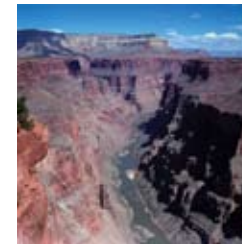
The City of Goodyear is once again proud to present its annual water quality report. This edition covers all testing completed from January 1 through December 31, 2005. Over the years, we have dedicated ourselves to producing and providing quality drinking water that meets or exceeds all regulatory requirements. We are pleased to inform you that our compliance with all state and federal drinking water regulations continues to remain exemplary. We are continually striving to adopt new and innovative improvement methods for delivering the best quality drinking water to your tap in the most cost effective manner. As new challenges arise, we will remain vigilant in meeting the challenges of providing quality drinking water at an affordable price, of protecting source water, of conserving treated water, and of educating the community while continuing to serve the needs of all the water customers of the City of Goodyear.

For more information about this report, or for any questions relating to your drinking water, please contact Linda Shapcott, Environmental Compliance Supervisor, at 623-932-3010.

Para la ayuda en español con este informe, por favor póngase en contacto con el departamento de la dirección de agua de la Ciudad de Goodyear, Sr. Ruben Veloz en 623-882-7511.

Community Participation

You are invited to participate in each City Council meeting and voice your opinions or concerns about your drinking water. The City Council meets on the second and fourth Monday of each month at 986 S. Litchfield Road. You may contact the City Clerk's office at 623-882-7830 or visit our website at www.goodyearaz.gov, for further information.



The Source of Your Drinking Water

The City of Goodyear's drinking water source is 100% groundwater. The City has production wells, storage facilities, and pressure booster stations. The underground aquifer from which the City receives its water is called the West Salt Valley Sub-Basin. The City of Goodyear also purchases groundwater from Litchfield Park Service Company (LPSCO), which draws from the same West Salt Valley Sub-Basin aquifer. The aquifer's depth ranges from 100 to 1,000 feet from the surface. With eight well sites (four of which include storage tanks) and five booster stations, the City of Goodyear's operating system has a storage capacity of 11.1 million gallons. To learn more about our watershed on the Internet, go to the U.S. EPA's *Surf Your Watershed* at www.epa.gov/surf.

Source Water Assessment – LPSCO

In 2003, the Arizona Department of Environmental Quality (ADEQ) completed a source water assessment for the 10 groundwater wells used by LPSCO. The assessment reviewed the adjacent land uses that may pose a potential risk to the sources. These risks include, but are not limited to, gas stations, landfills, dry cleaners, agriculture fields, wastewater treatment plants, and mining activities. Once ADEQ identified the adjacent land uses, the wells were ranked according to their potential to become contaminated by these land uses. The result of the assessment indicated all 10 wells were found to be at low risk for contamination.

The complete assessment is available for review at the Arizona Department of Environmental Quality. You can visit between the hours of 8 a.m. and 5 p.m. Monday through Friday or write to the ADEQ at 1110 W. Washington, Phoenix, Arizona 85007. Electronic copies are available from the ADEQ at dml@azdeq.gov. For more information, call Bruce Valley at LPSCO, at 623-298-4820 or visit the ADEQ's Source Water Assessment and Protection Unit website at www.azdeq.gov/enviro/water/dw/swap.html.



Important Health Information

Some people may be more vulnerable to substances in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.



The U.S. EPA/CDC (United States Environmental Protection Agency Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the *Safe Drinking Water Hotline* at 800-426-4791.



Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.



Water Quality Sampling Results

During the past year, the City of Goodyear conducted more than 4,500 water quality analyses in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants.

The tables on the following pages show only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells.

2005 Water Sampling Results

Regulated Substances	Units	MCL	MCLG	Goodyear			LPSCO			Violation	Major Sources in Drinking Water
				Amount Detected	Low Range	High Range	Amount Detected	Low Range	High Range		
Alpha Emitters	pCi/L	15	0	n/a	n/a	n/a	3.2	1.9	4.8	no	Erosion of natural deposits
Arsenic	ppb	10 ¹	0 ¹	19.3 ¹	4.9	19.3 ¹	n/a	n/a	n/a	no	Erosion of natural deposits; runoffs from orchards; runoffs from glass and electronics production wastes
Chlorine	ppm	mrdl=4	mrdlg=4	0.500	0.303	0.714	0.67	0.50	0.85	no	Water additive used to control microbes
Ethylbenzene	ppb	700	700	<0.5	<0.5	<0.5	n/a	n/a	n/a	no	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride	ppm	4	4	2.1	1.5	2.1	n/a	n/a	n/a	no	Erosion of natural deposits; additive for dental health; discharge from fertilizer and aluminum factories
Haloacetic Acid	ppb	60	n/a	11.9	6	11.9	4.7	1.3	4.7	no	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate ²	ppm	10	10	7.8	1.2	7.8	5.4	3.3	7.5	no	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Coliforms	% positive samples	5% positive monthly	0	not detected	n/a	n/a	1	n/a	n/a	no	Naturally present in the environment
Trichloroethylene	ppb	5	0	<0.5	<0.5	<0.5	n/a	n/a	n/a	no	Discharge from metal degreasing sites and factories
TTHMs ³	ppb	80	n/a	42	1	42	27.9	3.5	27.9	no	By-product of drinking water chlorination
Xylenes	ppm	10	10	0.001	0.0005	0.001	n/a	n/a	n/a	no	Discharge from petroleum factories; discharge from chemical factories
Unregulated Substances				Amount Detected	Low Range	High Range	<div><div>¹ These arsenic values are effective January 23, 2006. Until then, the MCL is 50 ppb and there is no MCLG.</div><div>² Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.</div><div>³ Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.</div></div>				
Bromoform				0.037	0.0013	0.037					

Table Definitions

AL (Action Level):
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL (Maximum Contaminant Level):
The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal):
The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level):
The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

n/a: not applicable

pCi/L (picocuries per liter):
A measure of radioactivity.

ppb (parts per billion):
One part substance per billion parts water (or micrograms per liter).

ppm (parts per million):
One part substance per million parts water (or milligrams per liter).

TTHM: trihalomethane

City of Goodyear 2004 Water Sampling Results for Lead and Copper

Substance	Units	Action Level	MCLG	Amount Detected 90th Percentile	Homes Above Action Level	Violation	Typical Source
Copper	ppm	1.3	1.3	0.18	0	no	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives
Lead	ppb	15	0	5.2	0	no	Corrosion of household plumbing; erosion of natural deposits

LPSCO 2005 Water Sampling Results for Lead and Copper

Substance	Units	Action Level	MCLG	Amount Detected 90th Percentile	Homes Above Action Level	Violation	Typical Source
Copper	ppm	1.3	1.3	0.04	0	no	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives
Lead	ppb	15	0	0	0	no	Corrosion of household plumbing; erosion of natural deposits

Tap water samples were collected for lead and copper analyses from 60 homes throughout the service area.



Substances Found in Water

As water travels over the surface of the land or through the ground, it can acquire naturally occurring minerals, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA’s *Safe Drinking Water Hotline* at 800-426-4791.



Fluoride in Drinking Water

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low concentrations, fluoride can help prevent cavities, but children drinking water containing more than 2 ppm of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). During weekly sampling one sample of drinking water provided by the City of Goodyear, had a fluoride concentration of 2.1 ppm. Dental fluorosis, in its moderate or severe forms, may result in a brown staining and pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. ***Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth, if consistently high levels of fluoride exist in your drinking water.***

You may also want to contact your dentist about proper use by young children of products containing fluoride. Older children and adults may safely drink the water.

Drinking water containing more than 4 ppm of fluoride, the U.S. EPA's drinking water standard, can increase your risk of developing bone disease. Your drinking water does not contain more than 4 ppm of fluoride, but we are required to notify you when we discover that the fluoride levels in your drinking water exceed 2 ppm because of this cosmetic dental problem.

Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 877-8-NSF-HELP.

For more information about fluoride in drinking water, please call the City of Goodyear Environmental Compliance Supervisor, at 623-932-3010.



Water – Our Most Precious Resource

Water is a vital resource for our thriving community—a resource needed to support existing residents and businesses as well as future ones. Using water efficiently is a part of managing this precious resource. The City of Goodyear Water Resources Department is pleased to post water conservation tips in the City's citizen monthly newsletter and on the City's website at www.goodyearaz.gov along with links to other water conservation websites. Additional information on landscaping for our desert region is available by calling 623-932-3010.

Please join the City in its efforts to conserve our most precious resource.

Stormwater Management

When water flows over driveways and lawns, it can collect debris, chemicals and other pollutants that flow into the storm sewer system and can pose a threat to clean water. Homeowners can help protect our water supply by practicing good household habits to keep common pollutants off the ground and out of stormwater.

Clean up spilled fluids with absorbent material and do not rinse them into a storm drain. Use pesticides and fertilizers sparingly, and avoid application if the forecast predicts rain. Sweep your driveway rather than hosing it off. Recycle used oil and other automotive fluids, do not pour them into the stormdrain or trash. Do not pour chemicals down the drain. Remember, storm drains and other drains, flow into retention basins that eventually drain into the aquifer deep down underground where our drinking water originates.

Residents can help protect water sources by taking hazardous household chemicals to the City's Hazardous Material Collection sites twice a year and by limiting the use of pesticides and fertilizers.